DOCUMENT RESUME

ED 455 449 CE 082 131

TITLE	Scheduling Guide for Career Academies.
INSTITUTION	California Univ., Berkeley. Career Academy Support Network.
SPONS AGENCY	DeWitt Wallace/Reader's Digest Fund, Pleasantville, NY.
PUB DATE	1999-03-00
NOTE	33p.
AVAILABLE FROM	For full text: http://casn.berkeley.edu/SchedulingGuide.html.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Block Scheduling; *Career Academies; *Career Education; Case Studies; Cooperative Planning; *Coordination; Course Selection (Students); Definitions; Educational Administration; Educational Cooperation; Guidelines; High Schools; Records (Forms); *Scheduling; *School Schedules; *Time Factors (Learning); Time Management
IDENTIFIERS	*Computer Assisted Guidance; *O Net

ABSTRACT

This document is intended to assist all individuals responsible for scheduling activities related to implementation of a career academy. The first section examines the importance of scheduling in forging the close ties among academy teachers and students that are critical to achieving a meaningful school-within-a-school program. The following steps in establishing a master schedule are detailed: (1) determine the classes to be included in the academy; (2) determine who will teach what classes; (3) build in a common preparation period; (4) allow for restrictions and conflicts; (5) chart the classes and teachers; and (6) fit the academy master schedule into the high school master schedule. Next, the following steps in the process of scheduling academy students are explained: (1) select new students; (2) complete student schedules; (3) allow for individual conflicts; and (4) work with high school counselors and the master scheduler. Three different approaches to dealing with block schedules and multiple academies are described. The document concludes with case studies of schools using the following types of program schedules: (1) a multiple academy with a block schedule in a traditional high school schedule; (2) an academy intercession within a traditional two-semester schedule; and (3) an academy block schedule within a traditional seven-period schedule. (MN)

ED 455 449

University of California at Berkeley

Scheduling Guide

for Career Academies

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
C. Dayton
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CASN
CAREER ACADEMY SUPPORT NETWORK

BEST COPY AVAILABLE

Scheduling Guide for Career Academies

University of California, Berkeley
Graduate School of Education
Berkeley, CA 94720-1674

This Guide was made possible by funding from
the Wallace - Reader's Digest Fund.

Career Academy Support Network
Graduate School of Education
University of California at Berkeley
Berkeley, CA 94720-1674
Phone: (510) 643-5748
E-mail: ask-casn@socrates.berkeley.edu
Web Site: http://casn.berkeley.edu

Table of Contents

Introduction
- The Intended Audience of this Guide 1
- The Importance of Scheduling 1

Steps In The Scheduling Process
- Establishing the Master Schedule 4
- Scheduling Academy Students 8

Dealing with Block Schedules, Multiple Academies
- Block Schedules 12
- Multiple Academies 15

Case Studies in Creative Variations
- Blair High School, Pasadena 18
- Coachella Valley High School 20
- Diamond Bar High School 21

References 23

Introduction

The Intended Audience of this Guide

The term Career Academy refers to a well defined program model, based on three defining structures within a high school: 1) a school-within-a-school; 2) a college prep curriculum with a career theme; and 3) partnerships with employers, community, and higher education.

Scheduling responsibilities vary from one Academy and high school to another, depending on the size of the school and district, the personnel involved, and the methods used for establishing a master schedule and placing students in that schedule. This guide is intended for anyone involved in the scheduling process where a Career Academy exists: Academy teachers, high school counselors, site administrators, and district schedulers. In each category, there may need to be adaptations of this information to fit local situations.

The Importance of Scheduling

One of the most difficult components to implement in a Career Academy is the scheduling of a group of students together in several Academy-only classes each day. In order to create a community of learners in which strong relationships are developed and maintained, that group scheduling--during each school day over a three-year period--is crucial. This is the only way to have a meaningful school-within-a-school in which close ties are forged between teachers and students and among students.

Unfortunately, such scheduling is often not easy. As simple as it may sound, it has led to the downfall or near downfall of more than one Academy. Counselors and schedulers are not accustomed to placing a block of students into several classes that are open only to them. They are not used to providing a group of teachers with the same planning period each day. Those who don't understand the purpose of these variations from a "normal" schedule may resent being asked to attempt such a schedule, given an already difficult process. There are cases in which counselors or administrators have

actually tried to sabotage the Academy to avoid this burden. Tensions around scheduling issues can be very harmful.

What happens when Academy classes aren't scheduled separately for only Academy students? Awkward situations result. If the class is made up predominantly of Academy students, then the few who aren't in the program feel left out, like second class students who don't understand the variations in curriculum and activities associated with the Academy. Attempts to forge ties among students and develop esprit de corps are harmed. Sometimes overall high school concerns require this; if academy classes become substantially smaller than others in the school it may be necessary to accept some non-academy students to provide balance. Flexibility may be necessary. Where this happens, it should be made clear to non-academy students how this will affect them, to avoid hard feelings when they are left out of program activities.

If the class is more or less equally balanced between Academy and non-Academy students then it becomes a problem for the teacher. At times he or she has to present different lessons, to arrange for alternative assignments and activities when the Academy curriculum varies, or to find something to do with non-Academy students when the Academy has business speakers, field trips, mentor activities, and the like. In those instances when only a few Academy students are placed in a non-Academy class, they lose the benefit of having a group of like-minded students around them with whom they can form allegiances and support for one another. In short, the purpose of a small learning community within the high school is lost.

Academies are successful at least in part because they are organized as small learning communities, creating a close, family-like atmosphere among students and teachers. This organization breaks down the disconnect students often feel in the traditional "silo" approach to curriculum, with no links among what is studied in various courses, or between coursework in general and what follows high school. Teachers, who often work with over 125 students daily and different students each year, have little time to really know and interact with their students or each other.

When Academy students are scheduled as a "cohort" with the opportunity to work together with the same teachers over a two- or three-year period, a sense of belonging emerges. Students are able to see connections and find relevance in learning. Teachers

and students alike respond to the opportunity to know one another at a meaningful level. Students who might be reluctant to ask questions in a regular class are comfortable seeking information from peers and teachers they have come to know and trust in an Academy. Similarly teachers, who have few opportunities to interact with other teachers beyond monthly faculty or department meetings, now become part of a group working together with common students and goals. They are able to integrate curriculum and provide opportunities for high-quality project-based learning. Evidence shows that this integrated teaching and learning leads to improved instruction and improved achievement.

These changes do not mean that Academy teachers need to disconnect from their departments. In fact, it is important that they continue these connections to stay abreast of curricular developments in their field, and to build links between the academy and the established departments. Other members of the faculty need to understand the purpose and structure of the Academy if it is to function smoothly within the high school, and department contacts can be a key to this. They can also be helpful in identifying new students for the Academy each spring.

To summarize, it is important that Academy students be scheduled together in several classes each day. In a school with a traditional schedule this means a minimum of three classes--four is recommended--in grades 10-11, and at least one, preferably two or three, in grade 12. With a block schedule, the figures are generally about half these, depending on the length of the block. The development of this guide came about because there have been so many questions about how to do this--more than on any other single topic related to Academies in recent years. While this guide doesn't answer every question related to Academy scheduling, it addresses the main ones: the purpose of such scheduling; the process for establishing a master schedule for an Academy and placing students in it; and scheduling Academies in alternative block schedules and with multiple Academies at a school.

Difficult as Academy scheduling problems may be, they are not insurmountable. Where there is an understanding of the purpose, staff in countless high schools have found a way to make the scheduling work. And as those who have worked in Academies and seen their success know, it is worth the trouble. This guide is designed to help in easing that trouble, to allow the benefits of the small learning communities that Academies represent to achieve their purpose.

Steps In The Scheduling Process

Establishing the Master Schedule

1. Determine the classes to be included in the Academy. This is step one. Usually there are three core academic courses at a time (selected from among English, math, science, and social studies) and one career-related class. Math, and science to a lesser extent, are more difficult to schedule than English and social studies. Math in particular is not scheduled by grade level. Tenth grade Academy students might be in three different math classes: Algebra, Geometry, and Advanced Algebra. Science is easier because most science courses offered in high school do not have prerequisites as math does.

Once the courses are determined, also determine the number of sections for each course. This needs to be done for each grade level at which the Academy is operating. Most commonly there are two sections (classes) of each course, which together accommodate 50-60 students. But this may vary. If there has been substantial attrition there may be only one section in the senior year, for example. If students can be in two alternative levels of math, there may be only one section of each. Some academies are smaller and include only one section of each course to begin with; some are larger and have three or four. Regardless, the first step is determining exactly what courses and how many sections of each will be taught at each grade level in the Academy.

2. Determine who will teach what classes. The next step is determining who will teach which classes. Teacher credentials play an obvious role here. Assignments are determined by what courses teachers are able and willing to teach. In many cases, teachers are credentialed in just one subject. For example some social studies teachers are not credentialed to teach economics, or life science teachers may not have sufficient background to teach chemistry or physics. Academies in which teachers have dual credentials have more flexibility if the teacher is willing to accept two different course preparations.

For new Academies enrolling just sophomores, probably only one teacher will be needed in each subject. However, once two or three grade levels are involved, it may be necessary to bring in additional teachers. The goal is for teachers to be as fully "dedicated" to the Academy as possible, in the sense they teach all their classes within the program; this allows them to focus fully on the Academy. An example of a set of teacher assignments within an Academy is provided on the next page.

TEACHER ASSIGNMENTS WITHIN THE ACADEMY:

Term 1	Period 1	2	3	4	Term2	Period 1	2	3	4
Ginn-Science Tech	HT II	HT II	A & P	Prep	Ginn	HT II	HT II	A & P	Prep
Myles -Social Sci.	World Stud	U.S. Hist		Prep	Myles	AmerG/Ec	U.S. Hist	World Stud	Prep
Henning - Science	Biology			Prep	Henning	Biology			Prep
Ruden - Spanish			Span 2	Prep	Ruden	Span 1		Span 3	Prep
Rule-Science Tech	HT III	HT I	Hon Chem	Prep	Rule		HT I	Chem	Prep
Trusty-English	Eng 11	Eng 10	Eng 12	Prep	Trusty	Eng II	Eng 10	HT IV	Prep
A. Muller - Math			Integ 1	Integ 2	A. Muller - Math				Integ 3
Classes outside of Academy, but requested during stated periods to provide the most commonly requested & required classes:					Classes outside of Academy, but requested during stated periods to provide the most commonly requested & required classes:				
Math		Calculus		PreCalculus	Math				
PE				PE IO	PE				PE 10
Other	Music/choir		French 2		Other	Music/choir		French 3 & Computer Applications	Physics

3. Build in a common preparation period. This is one of the complications in developing a master schedule for an Academy. All the teachers in the program need to have the same planning period. This is the best way for them to meét regularly to plan program activities, discuss students having problems and develop strategies for addressing them, integrate their curriculum, coordinate employer and parental involvement, and be a real team. Sometimes it is impossible for every teacher to have the same planning period, but usually this can be accommodated with advance planning. In those cases where teachers are provided an *extra* planning period, a release period, there is more flexibility in finding a common planning period, as there are two to choose from. In situations where conflicts make a common prep period impossible, it is usually possible to at least give all Academy teachers the same lunch period.

4. Allow for restrictions and conflicts. There are a number of considerations that may limit when a given teacher may be able to teach, or a given course scheduled. A teacher who teaches two subjects obviously can't have them scheduled at the same time. Two teachers who are team teaching need to have their classes blocked at the same time, usually in a double period. An Academy teacher who is also a coach or produces the school newspaper must allow for these responsibilities. An Academy class that involves a work internship or community service assignment during the semester usually needs to be scheduled in the afternoon. Sometimes academic departments have restrictions and/or preferences. Union contracts may limit some options. Class size limitations need to be considered. Sometimes classrooms are limited in their availability, such as computer labs. Whatever the restrictions, these need to be considered in developing a master schedule.

5. Chart the classes and teachers. At this stage in the process a chart can be used to develop the Academy schedule, and to indicate the courses to be offered in the Academy (see the example on the next page). This chart needs to include all grade levels in the Academy. Then the chart can be cross indexed with teacher names, taking into regard any restrictions. The completion of this chart provides in effect an Academy master schedule.

6. Fit the Academy master schedule into the high school master schedule. In most high schools a designated person who has been trained in the process makes the high school master schedule. Frequently this is the instructional vice-principal, in some cases the head counselor, or some large high schools with transient populations hire a person whose sole job is to develop the schedule and enroll students throughout the year. Most designated schedulers have attended seminars given by the company that provides the

HEALTH ACADEMY SCHEDULE

TEACHER	FIRST 8-9:00 Daily	SECOND 9:05-10:30 Even A	THIRD 9:05-10:30 Odd A	FOURTH 10:37-12:06 Even B	FIFTH 10:37-12:06 Odd B	SIXTH 12:53-1:48
M. Keeth	Health Careers	Health Careers	Health Careers	Health Careers	Health Careers	Free
R.O.P.	12	10	11	11	10	
B. Machado	Biology	Biology	Chemistry	Bio/Chemistry	Chemistry	Tutor
	10	10	11	12	11	
J. McFadden	English	English	English	Impact	English	Tutor
	11	12	10	11	10	
B. Sullivan	World History	US History	Govt/Econ	World History	US History	Athletic Dir
	10	11	12	10	11	
F. Bemthal	Algebra 1	Algebra 2	Geometry	Algebra 2	Pre-Calc	Tutor
	11	11	10	10	12	

software the high school uses, or others with expertise in scheduling. Computer programs provided by Pertain and SASI are commonly used for scheduling. Usually it takes a scheduler several attempts to find a schedule that accommodates all the courses and sections for the next year with a minimum of conflicts, and a few conflicts almost always remain. A ninety percent success rate is generally considered good. This means there will probably be a few students whose schedules will vary from the ideal.

Scheduling Academy Students

1. Select new students. While it is relatively easy to place continuing students in the schedule for the next year, new students must first be identified. Thus new incoming Academy students (usually sophomores) need to be selected at least a month before general school scheduling begins for the next year. While this varies from high school to high school, it usually means that the recruiting process for new students needs to begin fairly early in the spring semester. If these students can be identified and accepted by March or April, usually they can be scheduled along with the continuing students for the next year.

2. Complete student schedules. Both new and continuing Academy students need to meet with their Academy teachers and counselor and fill out course schedules for the next year, including both their Academy and non-Academy classes. They also need to examine courses completed and passed, and course requirements for graduation and college entrance. Another consideration is failed courses that need to be repeated or made up over the summer. Once completed, a form is then sent home with students, signed by parents or guardians, and returned to the Academy staff.

3. Allow for individual conflicts. Teachers and/or counselors need to review each student schedule for exceptions and conflicts that will affect the schedule. One example is activities that are only scheduled at one time, such as band or chorus. This may apply to certain electives, also, such as fine arts or technical courses. Where these occur, students may have to make choices between staying in the Academy or taking the desired activity or elective. Sometimes coordination must be worked out with another program where academy students are enrolled, such a regional occupation program or community college. Sometimes students can only remain in the Academy with less than the full

complement of courses, or can include a hard-to-schedule course through independent study.

Advanced Placement (AP) courses can present a particular challenge. They usually require students to meet at a particular time, and may involved a prescribed tutoring period. The existence of AP courses *within* an academy is rare and in can present a contradiction, since the course content in a true AP class is usually fixed and there is little possibility of academic and technical curriculum integration. AP courses should thus probably operate as separate core courses, and Academy students interested to such courses may need to take the subject in question outside the Academy. There are alternatives however. A few Academies are offering AP courses within the Academy if there are enough students to comprise a class and the need for curricular integration is minimal. Alternatively, there are also Academies that teach the additional instruction needed to pass the AP test in a zero period before school or in a lunch time seminar.

Another common conflict involves meeting graduation and college entrance requirements. Increased graduation requirements have made most students' schedules very full. Meeting college entrance requirements should be possible because *all* Academy academic courses should meet such requirements. Indeed, many schools are requiring *all core subjects* to meet college entrance requirements because of the emphasis on de-tracking and high standards for all. The problem that may arise is when the Academy's *technical* offerings fail to meet college entrance requirements and take time from a student's day that could be used for academic courses that do. If this occurs a choice needs to be made. This is a matter for the student, teachers, counselor, and parents to decide, but it is hard to imagine a better outcome than for a student than to develop college ambitions.

4. Work with high school counselors and the master scheduler. All student course schedules must be reviewed by counselors or, in schools that no longer have counselors, with the guidance tech or site administrator responsible for student scheduling. This needs to be completed for Academy students *before* whole school scheduling begins, to permit them to fit in the Academy "block" schedule (group of classes). The degree to which Academy staff take over this responsibility to plan individual course schedules or leave this to the general high school staff can vary. Often all Academy students are assigned to one counselor who keeps them for all three years, and who becomes in effect

an adjunct member of the Academy team. In other instances this isn't possible, and since Academy teachers usually have a good sense of their students' needs, they may take on this role. Regardless, close working relationships among Academy teachers, counselors, students, and parents facilitates this work.

Various computer programs are often used to assist in the process. SASI, Pertain, and MacSchool are all popular. All three provide options for "linking" classes, so that academy students, once scheduled into one of the program's classes, are automatically placed in the others as well. For example, with SASI students can be routed into the Academy by labeling it a "house." With Pertain, this can be done by using course codes. For Academies, these codes add a "flag" to indicate it is an Academy course. Then students enrolled in the program are automatically placed in all four of the Academy courses. Mac School uses essentially the same system as Pertain. Both the Academy courses and students are flagged, so the program automatically places these students into all their Academy courses.

However, most schedulers and counselors responsible for Academy scheduling comment that the individual variations often required make using these computer systems less than perfect. While these variations are problematic even when there are alternative sections of a subject, when four subjects become linked the flexibility is dramatically reduced. There are almost always at least a few students who simply can't fit into the prescribed times for all four courses. These variations have to be handled individually. In many instances, because of these complications, schedulers choose to hand schedule Academy students.

To review what scheduling responsibilities lie where:

Academy Responsibilities

- The Academy team determines course offerings for the following year and reviews teacher scheduling preferences and conflicts
- The Academy coordinating teacher develops an Academy master schedule
- The Academy coordinating teacher or counselor meets with high school scheduler to be sure the Academy schedule fits within the general master schedule

- Selection of new students takes place
- Both new and continuing students complete course schedules for all classes
- Academy teachers meet with students (individually or as a group) and with parents (optional) to ensure the schedule is correct
- Academy teachers and/or the assigned counselor check each student's schedule to be sure it is correct and includes all required classes

High School/District Responsibilities

- The site scheduler develops a master schedule for the entire high school
- The Academy coordinating teacher and site scheduler confer about the Academy and high school master schedules and review conflicts; together they refine these to ensure Academy-only classes and a common prep period for teachers
- The site scheduler receives the proposed Academy student schedules from the Academy teachers or assigned counselor; adjustments are made as needed for conflicts and special needs of individual students
- A printout is generated with a tentative schedule for each Academy student
- A school site scheduling report is run that includes for each course a request tally, course code, teacher's name(s), and total number of students
- The site scheduler and Academy coordinating teacher approve this schedule and send it forward to be part of the school wide schedule
- A "tag," "link," or "match link" can be used in the computer program for Academy students to keep them together in one block (group of classes)
- An Academy schedule is printed (separate from the high school master schedule) showing each teacher's assignments and schedule

Dealing with Block Schedules, Multiple Academies

Block Schedules

While the majority of high schools still operate on a traditional six- or seven-period daily schedule, many alternative schedules are now in use. These are usually called "block" schedules (causing confusion here, as this term is also used to refer to the group of classes students take together in an Academy, and often to the placing of these classes back-to-back in the schedule). There are many alternative forms of block scheduling. What they generally have in common is providing longer periods, allowing teachers more opportunities to team teach and integrate curriculum and to structure learning around student projects. Thus alternative schedules usually dovetail well with Academies' attempts to integrate curriculum and instruction.

Block schedules affect developing a master schedule for an Academy and fitting students into it, but they usually present few barriers. If a school is using a "four-by-four" block schedule, in which students take just four courses per day and semester, obviously it is impractical to have them take only Academy courses. Since such block courses generally cover as much curriculum in a semester as a traditional course does in a full year, usually just two Academy courses are included per semester, resulting in four Academy courses *per year*, as in the traditional schedule.

For systems that schedule classes on alternative days, Academy scheduling is little different from a single period system because there are the same total number of periods -- classes just meet every other day (or sometimes a modified version of every other day). Thus there can still be several Academy classes, but only some of them meet each day. This *may* cause problems with some scheduling software, however, which may not be designed to handle this variation.

Three examples of block schedules follow, each with the advantages and disadvantages shown.

Comparison of Three Schedule Structures From a Class Size And Student Load Point of View

Baseline: Number of staff is based on: Number of students school-wide, divided by 28.6. If there are 1500 students/28.6 = 52.45 teachers for 96-97 school year.

	# Teachers	X	Periods Taught / Periods per day	=	Teachers Per Period		# of Students	÷	# Teachers per period	=	Average Class size	X	#Periods Taught per day per Teacher	=	Student Contacts per day
6 Period Schedule	52.45	X	5/6	=	43.7		1,500	÷	43.7	=	34.32	X	5	=	171.6
Trimester schedule	52.45	X	4/5	=	41.96		1,500	÷	41.96	=	35.75	X	4	=	143
Wasson Schedule	52.45	X	3/4	=	39.33		1,500	÷	39.33	=	38.1	X	3	=	114.3

Comparison of Three Schedule Structures From a Number of Course Offerings And Time-In-Class Point of View

Type of Schedule	# Terms per year	Length of each Term	Number of Classes per School Day	Total Classes Possible Per Year	Total Minutes per School Day	Minutes in Passing--6 Minutes Between Classes	Minutes For Lunch	Instructional Minutes per Class	Instructional Minutes per Class per Term
Traditional 6 period day	1 (two semesters per term. In this case one term equals one year.)	36 weeks	6	6	400	30	34	56	10,080
Trimester	1.5 (each trimester equals 1 semester of credit. There are 3 semesters per year.)	12 weeks	5	7.5	400	24	31	69	8.280
4 X 4* (Wasson)	2 (Each term contains two semesters within the 18 week period of time.)	18 weeks	4	8	400	18	30	88	7,920

Some Academies have gone to block schedules even when the rest of the high school is on a traditional one, although this needs to be approached cautiously. It may interfere with testing and grade reporting. An Academy in this situation should probably modify its final exam and grading schedule to fit the rest of the high school. Lunch periods may also need to fit with the rest of the high school. And options for sports and other activities need to be considered.

Multiple Academies

To this point scheduling *one* Career Academy at a high school has been covered. This process can be duplicated with more than one Academy. Many high schools now have two, three, or more Academies. Some have gone "wall-to-wall," placing *all* grade 10-12 grade students in an Academy. Scheduling becomes more challenging in such instances.

One of the positive features of an Academy is having a "dedicated" faculty, a team of teachers who work exclusively or primarily in the Academy. This allows teachers to develop their own schedule and fit it into the high school master schedule. Academies that share teachers are more likely to have problems in forming their "small learning community," to participate in curriculum development and other professional activities. It is difficult to develop good integrated curriculum in one career field; trying to do so in two or more fields can be near impossible. Also, the more Academies the more difficulties any scheduling software is likely to have in dealing with conflicts. In fact, the number of variables can quickly become so high that no computer program can provide much help.

Other difficulties can also arise with multiple Academies. As each of several teams tries to schedule a common planning period, the options in the master schedule may become very limited. Trying to accommodate this need while scheduling four "linked" courses for several Academies adds to the complications. It may also become difficult to restrict every teacher's assignments to just one Academy, particularly in upper level courses in which there are few sections.

The problems in scheduling AP and Honors courses for Academy students also become more intense as the number of students in Academies grows. Conflicts between Academies and departments may develop as the scheduling preferences of the two compete. When a high school moves to an *all*-Academy structure, problems can develop

over where to schedule students who wish to leave an Academy, if there is no general path for them to move into.

For all the scheduling problems, Academies have proven to be so effective in motivating students and improving their performance in many settings that high schools and districts are adding more and more. One of the districts that has gone furthest in establishing multiple Academies is Oakland. It has 32 Academies operating in its six comprehensive high schools, and hopes to have 40 in the near future. Fremont High School here is well on its way to becoming an all Academy high school, with six Academies. The course structure for these six academies appears on the next page.

While the scheduling problems are real, with some creativity and flexibility they can usually be handled. There are no perfect solutions for these problems, but there are principles that help:

1. One is to be sure all scheduling staff members understand the purpose of a small learning community and its advantages to both students and teachers. Motivating staff to understand *why* they need to adapt to the Academy structure can make a big difference.

2. A second principle is to develop the Academy master schedules with their blocks of classes first, and to fit individual non-Academy courses around these. Where there are multiple sections of a given class, adjustments can often be made within an Academy, such as letting students switch from one period to another for a particular subject.

3. A third principle is to approach the scheduling with a sense of flexibility. Sometimes class size may have to vary a bit, an occasional Academy student may have to miss one of the Academy classes to satisfy a competing need, an occasional non-Academy student may need to be scheduled in an Academy class, or one Academy teacher may have to live with a planning period different from his or her team.

Scheduling in high schools has never been easy, and Academies add complexity to the process. But they provide a structure that can substantially improve the educational experience for students *and* teachers. One of the findings of the national evaluation of "career" academies (the national term for California's "Partnership" Academies) being conducted by Manpower Demostration Research Corporation is that *both* students and teachers clearly prefer them to the "regular" high school structure. Building an airplane is more complex than building a horse drawn carriage. But airplanes allow us to go places no carriage can.

Fremont High School Academy Courses

Architecture				
English II	World Cultures	Descriptive Geometry	Intro. Indus Careers	Service Learning
English III	US History	Algebra II	Arch. Draftitig & Design I, II	Mentoring
English IV	Gov't/Economics		Construction Design I, II	Internship
			Small Business Ownership	
Humanities/Human Services/Arts and Education				
English II	World Cultures	Foreign Language	Humanities	Service Learning
English III	US History	Foreign Language	Principles of Education	Mentoring
English IV	Gov't/Economics		Drama Production	Internship
Business and Government				
English II	World Cultures	Foreign Language	Intro. to Business	Service Learning
English III	US History	Foreign Language	Bus. Information Systems	Mentoring
English IV	Gov't/Economics		Accounting	Internship
			Marketing and Retail	
			Office Technology	
Electronics				
English II	World Cultures	Geometry/Algebra	Prin. of Technology I	Service Learning
English III	US History	Algebra II	Prin. of Technology II	Mentoring
English IV	Gov't/Economics		Electronics I, II	Internship
Health and Bioscience				
English II	World Cultures	Biology	Health Occupations	Service Learning
English III	US History	Physiology	Biotechnology 1 & 2	Mentoring
English IV	Gov't/Economics	Chemistry	Biotechnology 3 & 4	Internship
Media				
English II	World Cultures	Biology	Media Studies	Service Learning
English III	US History	Chemistry	Journalism	Mentoring
English IV	Gov't/Economics		Adv. Journalism	Internship
			Radio/TV Broadcasting I, II	

Case Study
Blair High School, Pasadena*
A Multiple Academy, Block Schedule
in a Traditional High School Schedule

Blair High School has had a state funded Partnership Academy in Health for almost a decade, and in the last year began a National Academy Foundation Travel and Tourism Academy. It plans to add a third academy in the fall. The high school is on a traditional six period schedule, but the academies use a block schedule during the morning for the academy classes. This is a an exercise in creativity and flexibility.

First period at Blair runs from 8-9 a.m., and this period is shared by the academies. Then beginning at 9, when the rest of the school remains on 56 minute periods, the academies move to two 90 minute classes. These cover periods two through four of the high school schedule, ending at 12:10. At this point lunch arrives, followed by fifth and sixth periods, which the academies and rest of the high school have in common. Thus while other students have six hour-long periods, academy students have three hour-long periods outside the academy and two 90 minute periods within it.

To accommodate the need for four classes within the academy, these two 90 minute classes vary on even and odd calendar days. Two subjects are covered on even days, the other two on odd days. The academy has found using calendar days to determine which is which works better than simply alternating them, as school holidays disrupt the pattern and cause confusion. Also, juniors and seniors in the Health Academy spend their Wednesday mornings at internship positions in local hospitals, so the class time needs to allow for this. The alternating calendar days balances this absence out, as Wednesdays occur alternately on odd and even days.

A matrix illustrating this innovative schedule follows. This may change in future years, when the high school may go on its own block schedule, perhaps a two-hour one, which will require more creativity for the Academies to maintain their schedules.

---

* This example is provided compliments of Karen Favor, Counselor at Blair High School, who handles Academy scheduling.

BLAIR HIGH SCHOOL
BELL SCHEDULES

REGULAR BELL SCHEDULE

PERIOD		TIME	MIN.
Period 1		8:00-8:55	55
	Passing		7
Period 2	Homeroom	9:02-9:07	5
	Passing		7
Period 3		10:09-11:04	55
	Passing		7
Period 4		11:11-12:06	55
LUNCH		12:06-12:46	40
	Passing		7
Period 5		12:53-1:48	55
	Passing		7
Period 6		1:55-2:50	55

ACADEMY SCHEDULE

Class Meeting Schedule

Academy classes are established along the lines of a modular schedule based upon the calendar date. We follow an EVEN - ODD schedule which simply means that the calendar date will determine the day's schedule. For example, since the first day of school this year is September 10, we will be on an EVEN schedule because 10 is an even number. The next day will be September 11 and we will follow an ODD schedule. Each day will begin with 1st Period. The last two Academy classes everyday will be ninety (90) minutes in length. These classes are designated as EVEN "A" and EVEN "B" or ODD "A" and ODD "B" depending upon the calendar day. Following the "A" and "B" periods the Academy follows the regular high school schedule for the remainder of the day. The two possible options are listed below. Class scheduling will determine which option will be implemented.

EVEN DAYS	TIME	ODD DAYS
	OPTION I	
1st Period	8:00-8:55 AM	1st Period
EVEN "A"	9:02-10:30 AM	ODD "A"
EVEN "B"	10:37-12:06 PM	ODD "B"
LUNCH	12:06-12:46 PM	LUNCH
5th Period	12:53-1:48 PM	5th Period
6th Period	1:55-2:50 PM	6th Period
	OPTION II	
EVEN "A"	8:00-8:30 AM	ODD "A"
EVEN "B"	9:37-11:04 AM	ODD "B"
4th Period	11:11-12:06 AM	4th Period
LUNCH	12:06-12:46 PM	LUNCH
5th Period	12:53-1:48 PM	5th Period
6th Period	1:53-2:50 PM	6th Period

Case Study
Coachella Valley High School*
An Academy Intercession
Within a Traditional Two Semester Schedule

Coachella Valley High School is located just east of Palm Springs. Two Academies currently exist at the school: a Health Academy and a Hospitality Academy. The staff at Coachella deals with scheduling issues and problems by providing an intercession. The regular school schedule is a two-semester system of 90 days each. The two Academies operate on a 75-30-75 schedule for periods two through five only; students are on the regular school schedule for periods one and six.

In the 30-day intercession courses are taught periods two through five, four hours a day, five days a week. The four hour session each day allows for creative instructional opportunities not available in the traditional 54 minute class. In a sense the intercession functions like a summer school. Students who would normally earn 60 credits are able to earn 70. Three distinct type of courses are offered:

- remediation for those who are behind in credits or course work
- career enrichment for those able to participate in work-based learning activities
- regular required courses

The *remediation course* is taught through Independent Study. This course is for students who have failed a required course. Students can make up the work and course immediately without having to repeat it the next semester or year. Student failures are made up instantly. The *career enrichment course* provides an in-depth instructional exploration in the related career field. Specialization is by interest. Past courses have included multimedia presentations and advanced computer use. Teacher interest and expertise are utilized to provide enrichment classes not normally offered. *Regular required courses* are offered in those subjects impacted by the Academy student's schedule. Examples have included Spanish 2 and 3, Driver Education, Health, and Physical Education.

---

* This example is provided compliments of Charles Housewright, past Coordinator of these Academies, and now a district administrator.

Case Study
Diamond Bar High School
An Academy Block Schedule
Within a Traditional Seven Period Schedule

Diamond Bar High School in Walnut, California, has a "Pathways Academy." The Academy is on a block schedule in which students have four 90 minute periods each day. Students take five courses each semester: three Pathways classes and one other block in which to take two other classes. By offering 90 minute classes, the staff is able to maximize instructional time and satisfy the course instructional hours requirement in one semester instead of two. Each semester Academy class earns students one year's credit.

Each Diamond Bar student has a Grade Level Coordinator (GLC) for their entire four years. The Academy staff works closely with the six GLCs at the school. The school as a whole has demand registration with a lottery system for registration appointments. Academy registration, however, is done by hand by Academy staff and then given to the GLC who enters it into the computer. Academy students have priority scheduling to ensure that students are enrolled in their required courses outside the Academy blocks. Students choose from regularly scheduled classes, including AP classes, performing arts, athletics, and other courses not offered in he Academy.

The Pathways Academy starts at 9:45 a.m., after brunch, and continues beyond the regular school day to 3:35 p.m. Students start with their other classes at 7:25 a.m. or 8:31 a.m. and then come into the Academy at 9:45 a.m. and continue until 3:35 p.m. They receive 10 credits for their semester academy classes. They have an extra "snack" break from 2:00 until 2:15 p.m.

All the students are in the Academy during Block 2, and with a few exceptions in Block 3, which provides an extended time period from 9:45 a.m. until 2:00 p.m. for field trips, speakers and special Academy activities. Most students stay for the rest of the day also, through Block 4, but a few leave for sports at 2:25 p.m. A sample schedule is presented on the next page.

Pathways Academy

Diamond Bar High School

Pathways Academy Block Schedule

Pathways Academy — Regular Bell Schedule

	Start Time	End Time		Start Time	End Time
Block 1	7:50	9:26	Period 1	7:25	8:25
Brunch	9:26	9:36	Period 2	8:31	9:26
Block 2	9:42	11:13	Penod 3	----------	----------
Homeroom	11:13	11:43	Period 4	----------	----------
Lunch	11:43	12:23	Lunch	11:43	12:23
Block 3	12:29	1:59	Period 5	12:29	1:24
Block 4	2:05	3:35	Period 6	1:30	2:25

Block 1: Students may leave the Academy for two non-academy classes.

Block 2: Students **may not** leave the Academy during Block 2 and homeroom. This time is reserved for special Academy activities.

Block 3: Students may leave the Academy for one non-academy class.

Block 4: **Only students enrolled in athletics** may leave during this block. Student must have prior approval of Academy teachers and athletic coach.

A PERSONALIZED PATHWAY TO EDUCATIONAL EXCELLENCE

References

Canady, R.L. & Rettig, M.D. *Teaching in the Block*. Larchmont, NY: Eye on Education, 1996.

Canady, R.L. & Rettig, M.D. *Block Scheduling: A Catalyst for Change in High Schools*. Larchmont, NY: Eye on Education, 1996.

Cushman, K. "Using Time Well: Schedules in Essential Schools." *Horace* (Vol. 12, No. 2, November 1995). Providence, RI: Coalition of Essential Schools.

Steadman, M.H. "Chapter 4: Alternative Scheduling." In *Lessons Learned; Five Years in the Urban Schools Network* (Erika Nielsen Andrew, et al). Berkeley, CA: NCRVE, 1997.